

Stage 3 - Plan Learning Experiences and Instruction

Lesson 1

Consider the W.H.E.R.E.T.O. elements. (L)

(W) 1.1 Students will understand that the purpose and coding for much of our data collection is defined by state and federal agencies. **(Where)**

Secretaries should understand the purpose of the data that they collect as part of their job. **(Why)**

Use State guidelines for collecting and entering required data into the district Student Information System. **(What)**

(H) 1.2 Visual Analysis of aggregated survey results. Use colorful and informative graphs to attract attention. **(Hook)**

(E) 1.3 Students will know what values belong in each enrollment field field **(Equip)**

Aggregated graphs will use interactive visualization software called Tableau, so students will have a chance to interact with the data **(Explore)**

Survey: Multi-choice quiz delivered as an online survey; will assess understanding of subsidy calculation and the real cost of inaccurate data. **(Experience)**

(R) 1.4 Students will use aggregated survey results to rethink their own answers. **(Rethink)**

(E) 1.5 **Pre-assessment:** Online Survey (using Infinite Campus) to discern ability level and existing knowledge of enrollment field utility.

Timely Feedback: Teacher feedback, aggregation and demonstration of survey results **(Evaluate)**

(T) 1.6 **Verbal:** Students will read and respond to survey questions, and will discuss the aggregated results.

Logical: Some of the survey questions will require logic to answer, plus we'll analyse aggregated responses.

Visual: Analysis of aggregated survey results will include visually informative charts.

Interpersonal: There will be a group discussion of survey results to elaborate on understandings of enrollment field utility.

Intrapersonal: The survey will require some reflection on each student's existing knowledge.

(O) 1.7 Students will be able to criticize state data collection procedures and definitions. **(Facet)**

Online survey tool **(Type II Technology)**

20 minutes for pre-test, plus 1 hour lesson. **(Organize)**

Lesson 2

Consider the W.H.E.R.E.T.O. elements. (L)

(W) 2.1 Students will understand the importance of accuracy, evaluation and re-design of data collection and data entry procedures. **(Where)**

Secretaries should understand the financial implications of the data they handle on a daily basis. **(Why)**

Use State guidelines for collecting and entering required data into the district Student Information System. **(What)**

(H) 2.2 Show a quick YouTube video to demonstrate an extreme case of how expensive inaccurate data can be. **(Hook)**

(E) 2.3 Students will know how to evaluate their data entry procedures. **(Equip)**

Students will be encouraged to use "dia" which is a free diagram tool that might be used for creating their timeline. **(Explore)**

Summary: Five point written summary of a current data collection procedure used in their school. **(Experience)**

(R) 2.4 Students will create a timeline using their 5 point summary and will revise and refine based on teacher feedback. **(Revise/Refine)**

(E) 2.5 Check for Understanding: Sequencing Events.

Timely Feedback: Teacher feedback, in class help with sequencing. **(Evaluate)**

(T) 2.6 Verbal: Teacher feedback

Logical: Creation of the timeline will require logical sequencing.

Visual: The YouTube video used in the hook will appeal to visual learners.

Musical: The YouTube video may also appeal to auditory learners.

Intrapersonal: Students will reflect on a data entry procedure that they use in their own school.

(O) 2.7 Students will be able to evaluate current data entry procedures **(Facet)**

5 point summary & timeline **(Product)**

1 hour lesson **(Organize)**

Lesson 3

Consider the W.H.E.R.E.T.O. elements. (L)

(W) 3.1 Students will understand the importance of accuracy, evaluation and re-design of data collection and data entry procedures. **(Where)**

Secretaries should understand the value in improving their critical data entry procedures. **(Why)**

Use State guidelines for collecting and entering required data into the district Student Information System. **(What)**

(H) 3.2 Work smarter not harder. **(Hook)**

(E) 3.3 Students will know how to improve & redesign their data entry procedures **(Equip)**

Use a stopwatch to time and old process and a new process and compare speed and accuracy **(Explore)**

Diagram: Fill in a simple flow chart template to show an improved data entry procedure. **(Experience)**

(R) 3.4 Rethink/Revise the data entry procedure based on thinking diagram and peer feedback.

(E) 3.5 Check For Understanding: Use a thinking diagram to compare efficiency and accuracy of the students existing procedure with a possible new procedure

Timely Feedback: Peer feedback, discuss each others's procedures to learn from each other.

(T) 3.6 Verbal: Group discussions enable verbal learning.

Logical: Ordering of flowchart will require use of logic.

Visual: The flowchart diagram is a good visual learning device.

Kinesthetic: Use of stopwatch to time each process may appeal to kinesthetic learners.

Interpersonal: The group discussion for peer feedback will appeal to interpersonal learners.

Intrapersonal: Creation of thinking diagram will require introspection.

(O) 3.7 Students will be able to build new procedures to improve data accuracy. **(Facet)**

Thinking diagram & Flowchart. **(Product)**

1 hour lesson **(Organize)**

Lesson 4

Consider the W.H.E.R.E.T.O. elements. (L)

(W) 4.1 Students will understand that enrollment data in our local Student Information System directly impacts both State funding and local administration. (Where)

Secretaries should understand who uses the data that they collect and enter. (Why)

Use State guidelines for collecting and entering required data into the district Student Information System. (What)

(H) 4.2 Present a role-play discussion on data use between the district superintendent and a school principal. (Hook)

(E) 4.3 Students will know who uses each piece of data (both locally and at the state level). (Equip)
Explore other class members Venn diagram's (Explore)

Diagram: Venn diagram of data users to show intersections between users and data points. (Experience)

(R) 4.4 Revise and refine Priority Lists and Venn diagrams after class discussion (Revise/Refine)

(E) 4.5 **Check for understanding:** Make a priority list matching data fields with data users. (Evaluate)

Timely Feedback: Self evaluation of Venn Diagram after class discussion

(T) 4.6 **Verbal:** Students will participate in role-play and class discussions.

Logical: Construction of the Venn Diagram will require logical thinking.

Visual: Venn Diagrams also appeal to visual learners.

Interpersonal: Interpersonal learners will be engaged by class discussion & sharing of diagrams.

Intrapersonal: Students will be asked to self evaluate their diagram.

(O) 4.7 Students will be able to consider the needs of all data users. (Facet)

Venn Diagram (Product)

1 hour lesson. (Organize)

Lesson 5

Consider the W.H.E.R.E.T.O. elements. (L)

(W) 5.1 Students will understand that the purpose and coding for much of our data collection is defined by state and federal agencies. (Where)

Secretaries should understand that some data collections are mandated by state and federal agencies. (Why)

Use State guidelines for collecting and entering required data into the district Student Information System. (What)

(H) 5.2 Visual Analysis of aggregated survey results. Use colorful and informative graphs to attract attention. (Hook)

(E) 5.3 Students will know reporting dates and timeline. (Equip)

Extract applicable timeline events from MDOE's reporting calendar. (Explore)

Survey: Multi-choice quiz delivered as an online survey; will assess understanding of why each data point is collected. (Experience)

(R) 5.4 Rethink answers to survey after reflective exercise (Rethink)

(E) 5.5 **Check for Understanding:** 3-2-1 Reflection to synthesize understanding of reporting deadlines.

Timely Feedback: Peer feedback, reacting to each other's reflections

(T) 5.6 Verbal: The lesson will include discussions and reflective statements.

Logical: Use of calendars and sequencing should appeal to logical learners.

Visual: Aggregated survey responses will be displayed to the class in charts and graphs.

Interpersonal: Class discussions will engage interpersonal learners.

Intrapersonal: The quiz & self reflection will trigger introspection.

(O)5.7 Students will be able to explain how state data collections affect district funding. **(Facet)**

Online survey tool **(Type II Technology)**

1 hour lesson. **(Organize)**

Lesson 6

Consider the W.H.E.R.E.T.O. elements. (L)

(W) 6.1 Students will understand that enrollment data in our local Student Information System directly impacts both State funding and local administration. **(Where)**

Secretaries should understand the basic funding formula the state uses to allocate money to districts.

(Why)

Use State guidelines for collecting and entering required data into the district Student Information System. **(What)**

(H) 6.2 Presentation using Excel template for state funding formula. **(Hook)**

(E) 6.3 Students will know state funding formula works. **(Equip)**

Explore the excel template, and consider data accuracy affects funding **(Explore)**

Discussion: Open critique of each data entry flow charts, student will use their data experiences to make suggestions to others. **(Experience)**

(R) 6.4 Revisit the data entry flow charts from lesson 3, and revise the process after considering the affects of accuracy and funding **(Rethink/Revise)**

(E)6.5 Check for understanding: As I see It: elicit opinions and understandings about factors involved in funding.

Peer feedback: Discuss opinions and understandings.

(T)6.6 Verbal: The lesson will include discussions and a verbal lesson about how to use the Excel template.

Logical: Revisiting the flow charts and using the excel template should appeal to logical learners.

Visual: The Excel template should also appeal to visual learners.

Interpersonal: Group discussions around week 3 flow charts will appeal to interpersonal learners.

Intrapersonal: Rethink and revision of flow charts will ask students to think about their own processes.

(O)6.7 Students will be able to recognize situations where inaccurate data is detrimental to the district **(Facet)**

Lesson will lead into Assessment Task. **(Product)**

1 hour lesson. **(Organize)**

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